

IN THE CLAIMS

Claims 1-2 (canceled).

3. (new) A refining element for use in the refining of fibrous material, said refining element including a refining surface having a pattern of bars and a plurality of intermediate first grooves having a first width between said plurality of bars, said bars including a pair of side surfaces and an upper surface and extending in an arcuate shape longitudinally outwardly over said refining surface, said upper surface of said bars including a plurality of second grooves having a second width, said first width being greater than said second width, said plurality of second grooves forming a predetermined angle of from 10° to 90° with respect to said longitudinal direction of said bars, whereby said second grooves extend substantially radially with respect to said refining surface.

4. (new) The refining element of claim 3 wherein said plurality of second grooves each extend angularly in the same direction with respect to said bars.